

## HAND WEIGHTS WITH FINGER SUPPORT

### FIELD OF THE INVENTION

10       The present invention relates generally to hand weights and particularly to a hand weight that includes finger sleeves for supporting the hand weight at least by the proximal phalanges so that anatomical resisted movements may be performed, in addition to wrist and finger extensions.

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### BACKGROUND OF THE INVENTION

Hand weights, such as dumbbells, are designed to be grabbed by the handle while performing strength training. If a therapist desires to use the dumbbells for other exercises  
20 requiring a looser grip on the handle, such as for anatomical resisted movements or for wrist or finger extensions, the hand weights would not be suitable for the purpose.

## **OBJECTS AND SUMMARY OF THE INVENTION**

It is an object of the present invention to provide hand weights, such as dumbbells, with individual finger sleeves to support the dumbbells at least by the proximal phalanges, so  
5 that anatomical resisted movements or finger and wrist extensions may be performed.

It is another object of the present invention to provide hand weights with individual finger sleeves that adjust to the size of the user's fingers and support the hand weights at least  
10 from the user's proximal phalanges to allow a looser grip on the hand weights while performing certain exercises.

In summary, the present invention provides a hand weight, comprising a handle; and a plurality of finger sleeves operably attached to the handle, each finger sleeve being designated for  
15 a specific finger of a user to support the hand weight from the user's fingers.

These and other objects of the present invention will become apparent from the following detailed description.

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## **BRIEF DESCRIPTIONS OF THE DRAWINGS**

Fig. 1 is a perspective view of a hand weight incorporating a plurality of finger sleeves made in accordance with the present invention.

Fig. 2 is a cross-sectional view taken along lines 2-2 of Fig. 1.

Fig. 3 is a perspective view of a hand weight incorporating a plurality of finger sleeves made in accordance with another  
5 embodiment of the present invention.

Fig. 4 is a cross-sectional view taken along line 4-4 of Fig. 3.

Fig. 5 is a cross-sectional view taken along line 6-6 of Fig. 4, showing the attachment of the handle sleeve to the hand weight.

Fig. 6 is a perspective view of the hand weight of Fig. 3, shown with the user's proximal and middle phalanges supporting the hand weight.

#### **DETAILED DESCRIPTION OF THE INVENTION**

A hand weight 2 made in accordance with the present invention is disclosed in Figs. 1 and 2. The hand weight 2 comprises a handle 4 and weights 6 attached to the opposite ends of the handle 4. The handle 4 may include threads 8 at its ends for removably securing the weights 6 to allow other weights to be attached to the handle 4.

A plurality of finger sleeves 10 are operably attached to the handle 4, such as by means of a handle sleeve 12 wrapped

around the handle 4. The finger sleeves 10 are preferably designated for the user's index, middle, ring and little fingers, respectively. The finger sleeves 10 provide the means for helping to support the hand weight 2 from the user's fingers with a looser grip so that the hand weight may rest at the proximal interphalangeal joint, the distal interphalangeal joint or the metacarpophalangeal joint. The finger sleeves 10 are oriented transversely to the handle 4. The handle sleeve 12 has a plurality of slots 14 through which the finger sleeves are looped. A person skilled in the art should understand that there are other means for securing the finger sleeves 10 to the handle sleeve 12, such as by stitching the finger sleeves onto the handle sleeve.

The finger sleeves 10 and the handle sleeve 12 may be made of nylon or other fabrics.

The hand weight 2 is shown as a dumbbell, but it should be understood that the present invention can be used with other types of hand weights that would require support from the user's proximal phalanges to allow the user to perform anatomical resisted motions.

Referring to Figs. 3 and 4, another embodiment of the present invention is disclosed. A hand weight 16 comprises a handle 18 and weights 20 permanently attached to the opposite

ends of the handle 18. A handle sleeve 22 is removably wrapped around the handle 18 and secured thereto by means of a hook and loop fastener 23 disposed at respective overlapping surfaces at opposite ends 24, as generally shown in Fig. 5. A plurality of vertical walls 26 extend through a plurality of slots 28 in the handle sleeve 22. The vertical walls are preferably arranged in two rows. A strap 30 is disposed over each row to enclose the vertical walls 26 and define a plurality of finger sleeves 32. The vertical walls 26 and the strap 30 are preferably made from nylon or other fabrics with hook-and-loop fasteners (VELCRO) such that the vertical walls 26 are folded over the user's fingers as the strap 30 is pressed down on each vertical wall 26 and be removably attached to the last vertical wall. Note that the top portion of each vertical wall 26 becomes removably attached to the underside of the respective strap 30, advantageously making each finger sleeve 32 structurally sound while conforming to the user's finger size. The strap 30 is advantageously adjustably secured to the last vertical wall 26 so as to lengthen or shorten its effective length as it lays over the user's fingers, thereby to increase or reduce the size of the finger loops 32.

The finger sleeves 32 provide the means for simultaneously supporting the hand weight 16 from the user's proximal and

middle phalanges. The handle sleeve 22 provides the means for attaching the finger sleeves 32 to the handle 18.

The vertical walls 26 and the straps 30 may be made from one single piece. The vertical walls are doubled up, attached to each other at their respective base portions 34, and threaded through the respective slots 28, leaving portions 36 between the vertical walls lying under the handle sleeve 22 between the slots 28.

The hand weight 16 shown in Figs. 3-5 preferably includes finger sleeves 32 for the index, middle and ring fingers. A finger sleeve for the little finger may also be included. The two rows of finger sleeves 32 are disposed apart from each other so as to be positioned over the proximal and middle phalanges of the user's fingers when the user's fingers are inserted into the finger sleeves, as best shown in Fig. 6. With the use of the finger sleeves, the hand weights are advantageously supported from the proximal and middle phalanges, allowing the user to hold the hand weights relatively easier and with a looser grip. This advantageously allows the user to safely incorporate wrist and finger extensions and other exercises with resisted movements that require a looser grip on the hand weights, as generally shown in Fig. 6.

The present invention is designed to aid in the grip of the user who is performing anatomical resisted movements.

While this invention has been described as having preferred design, it is understood that it is capable of further modification, uses and/or adaptations following in general the principle of the invention and including such departures from the present disclosure as come within known or customary practice in the art to which the invention pertains, and as may be applied to the essential features set forth, and fall within the scope of the invention or the limits of the appended claims.